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Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue, Pittsfield, MA 01201

Transmitted Via Overnight Delivery

July 14, 2004

Mr. William Lovely
United States Environmental Protection Agency
EPA - New England (MC HBO)
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

**Re: GE-Pittsfield/Housatonic River Site
Floodplain Residential and Non-Residential Properties Adjacent to
1½ Mile Reach of Housatonic River (GECD710 and GECD720)
Work Plan Addendum - Phase 4 Floodplain Properties, Group 4A**

Dear Mr. Lovely:

In January 2002, the General Electric Company (GE) submitted to the U.S. Environmental Protection Agency (EPA) a document titled *Pre-Design Investigation Work Plan for Floodplain Properties Adjacent to the 1½ Mile Reach of the Housatonic River* (PDI Work Plan). That document was prepared in accordance with the Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site and the accompanying *Statement of Work for Removal Actions Outside the River* (SOW). The PDI Work Plan proposed initial pre-design PCB soil investigations for two of the Removal Action Areas (RAAs) identified in the CD and SOW: 1) Floodplain Current Residential Properties Adjacent to the 1½ Mile Reach - Actual/Potential Lawns; and 2) Floodplain Non-Residential Properties Adjacent to the 1½ Mile Reach (Excluding Banks). These combined RAAs will hereafter be referred to as the 1½ Mile Floodplain RAAs.

To provide coordination between any future response actions that may be needed for the 1½ Mile Floodplain RAAs, and those to be separately conducted by EPA for sediments and riverbank soils in this same reach of the river, GE proposed, in the PDI Work Plan, to conduct pre-design investigations and subsequent activities for the 1½ Mile Floodplain RAAs in four phases:

- Phase 1 - Lyman Street Bridge to Elm Street Bridge;
- Phase 2 - Elm Street Bridge to Dawes Avenue;
- Phase 3 - Dawes Avenue to Pomeroy Avenue; and
- Phase 4 - Pomeroy Avenue to the Confluence.

In a letter dated July 8, 2002, EPA provided conditional approval of a portion of the PDI Work Plan -- i.e., the pre-design soil investigations identified for the Phase 1 properties. The EPA conditional approval letter also set forth various requirements concerning the remaining properties addressed in the PDI Work Plan, including the future submission of Phase- and/or Group-Specific Work Plan Addenda for those properties.

SDMS DocID 000210967



To date, GE has completed investigation and evaluation activities associated with the Phase 1 and 2 properties and on January 14, 2004, GE submitted to EPA a combined Pre-Design Investigation/Soil Evaluation Report and Conceptual Removal Design/Removal Action Work Plan for the Phase 2 properties. GE has also completed investigation activities at the Phase 3 properties in accordance with GE's January 8, 2004 Work Plan Addendum for the Phase 3 properties, as conditionally approved by EPA in a letter dated March 15, 2004. A report summarizing the results of the investigations and follow-up activities related to the Phase 3 properties will be submitted to the EPA by August 16, 2004.

At EPA's request, GE has prepared this Work Plan Addendum for the Phase 4 Group 4A properties. Group 4A includes two recreational properties (Parcels I7-1-5 and I7-1-101) and one residential property (Parcel I7-1-2), as identified in the SOW. The properties in this group are shown on Figure 1, along with existing and proposed sampling locations. The proposed soil boring locations and sampling depths are presented in Table 1. This Work Plan Addendum describes the proposed initial pre-design PCB soil investigations for the Phase 4 Group 4A properties and presents a proposed schedule for the performance of these investigations and subsequent activities. Similar activities associated with the Phase 4 Group 4B and 4C properties will be proposed in a separate Work Plan Addendum at a later date, at a time that is compatible with EPA's anticipated schedule for remedial actions associated with the 1½ Mile Reach of the Housatonic River. The locations of the Group 4A, 4B, and 4C properties are shown on Figure 1.

I. Summary of Background, Existing Data, and Pre-Design Activities – Phase 4 Properties

As indicated above, Group 4A includes two recreational properties (Parcels I7-1-5 and I7-1-101) and one residential property (Parcel I7-1-2). Parcel I7-1-101 is Fred Garner Park, owned by the City of Pittsfield.

Previous sampling activities conducted by GE and EPA have resulted in the analysis of approximately 400 soil samples collected from approximately 125 locations within or adjacent to the above-referenced properties. These soil sampling locations and corresponding PCB analytical results are shown on Figure 2. Review of the existing data within the Phase 4 Group 4A properties indicates that prior PCB sampling has been conducted on a grid-like pattern within the upper soil depths (generally the top 2 feet) of the Actual/Potential Lawn areas within Parcel I7-1-5 and along the eastern portion of Parcel I7-1-101 adjacent to the east branch of the Housatonic River. No PCB analytical results exist within Parcel I7-1-2. As indicated in the PDI Work Plan, the existing data have been subject to a data quality review to assess their usability in meeting pre-design investigation requirements and in future RD/RA activities. From this review, it was determined that all of the available data can potentially be used to satisfy pre-design investigation requirements and/or support future RD/RA evaluations.

Consistent with EPA's conditional approval of the PDI Work Plan, GE has included in this Addendum existing data for the other constituents listed in Appendix IX of 40 CFR Part 264 (excluding pesticides and herbicides), plus benzidine, 2-chlorethyl vinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3), for the Phase 4 Group 4A properties. These data are presented in Table 2 (for prior GE Appendix IX+3 data) and Table 3 (for prior EPA Appendix IX data) and, as described below, will be considered as part of an evaluation of the need for and scope of additional sampling for other constituents to be included in GE's next pre-design submittal for the Phase 4 Group 4A properties.

The scope of the initial pre-design PCB soil investigations was previously presented in the PDI Work Plan. The proposed pre-design soil sampling for the Phase 4 Group 4A properties is described below and depicted on Figure 2. The proposed soil boring locations and sampling depths within the Phase 4 Group 4A properties are presented in Table 1. Consistent with EPA's conditional approval letter dated July 8, 2002, GE has revised Figures 1 and 2 to include the 10-year floodplain boundary and available topographic information. Please note that the 10-year floodplain boundary depicted on Figures 1 and 2 is

approximate. Also note that Figure 2 shows the approximate top-of-bank, which defines the separation between the Phase 4 Group 4A floodplain properties and EPA's riverbank portions of the 1½ Mile Reach. It is anticipated that the final location of the top-of-bank line and EPA limit-of-excavation for this stretch of river will be agreed upon in the course of GE's preparation of its subsequent pre-design submittals for the Phase 4 Group 4A properties (described in Section III below).

II. Proposed Investigation Activities

GE has evaluated potential PCB data needs for surface soil at the above-referenced properties, resulting in the identification of additional investigations for the top foot of soil for all or portions of the parcels included in this group. For deeper soils within the Phase 4 Group 4A properties, there is much less PCB soil data. Hence, as set forth in the PDI Work Plan, subsurface soil sampling is proposed on a regular pattern, with the particular spacing between borings selected based on the existing PCB data and the characteristics of the property.

Based on review of the existing data, the proposed initial pre-design sampling for this group includes the collection of 137 soil samples from 45 locations within the non-riverbank portions of these properties, as shown on Figure 2, and analysis of these samples for PCBs. As described in the Pre-Design Investigation Work Plan, based on the location of these parcels relative to the Housatonic River, their relative large size, and the results of the sampling conducted to date, the proposed pre-design sampling activities involve a combination of (1) a symmetrical sampling pattern in the portions of the non-residential properties nearer the river as appropriate to continue the previous sampling pattern in these areas and to collect subsurface soil data; (2) more focused and dense sampling in a potential higher-use area (i.e., the canoe launch at Parcel I7-1-101); (3) less dense sampling of I7-1-101 farther from the river; and (4) limited initial soil sampling at residential Parcel I7-1-2, which is fairly far removed from the river and at a higher elevation.

Of the proposed sample locations, 22 will be surface-only samples (0- to 1-foot sample depth) and 23 will involve the advancement of soil borings. Soil samples from the proposed borings (all located on the recreational properties) will be collected from the 0- to 1-foot, 1- to 3-foot, 3- to 6-foot, 6- to 10-foot, and 10- to 15-foot depth increments. These samples will be analyzed in an iterative manner, with the samples extending to 6 feet below ground surface (bgs) subject to initial analysis for PCBs and the samples from the deeper increments held for subsequent analysis for PCBs if the analysis of the shallower samples indicates that the vertical extent of PCBs is not yet defined by those samples. The sampling depth increments from the proposed borings are presented in Table 1.

III. Future Activities and Proposed Schedule

In accordance with the approved PDI Work Plan, pre-design soil investigations for Phase 4 Group 4A floodplain properties will be conducted in an iterative manner, with the proposed initial round of sampling involving the collection of 137 soil samples from 45 locations for PCB analysis. Once the PCB data associated with the initial pre-design activities have been received, GE will assess the need for additional PCB sampling to address any identified data needs. In addition, those PCB data will be evaluated to determine (on a conceptual basis) the potential response actions that may be needed to achieve the applicable PCB Performance Standards for each property. Based on this assessment, GE will also evaluate the need for and scope of sampling for other Appendix IX+3 constituents and will propose such additional sampling (if needed) to EPA.

GE proposes to perform the PCB sampling described herein and to submit an Interim Pre-Design Investigation Report to EPA within 4 months from EPA's approval of this Work Plan Addendum, subject

to obtaining access agreements in a timely manner and subject to potential seasonal constraints on performing the investigations. That report will include the results of the PCB sampling performed, an evaluation of additional PCB and non-PCB data needs, a proposal (as may be appropriate) for additional sampling activities to satisfy those data needs, and a proposed schedule for conducting those additional investigations, as well as future reporting. If delays in obtaining access permission or delays due to seasonal constraints or other factors will cause a delay in the schedule for the proposed sampling and submission of the Interim Pre-Design Investigation Report, GE will notify EPA and propose a revised schedule.

Please contact Dick Gates or me with any questions.

Sincerely,

A handwritten signature in black ink that reads "Andrew T. Silfer / Acc". The signature is written in a cursive, flowing style.

Andrew T. Silfer, P.E.
GE Project Coordinator

Enclosure

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Public Information Repositories
GE Internal Repository

**cover letter only*

Tables

TABLE 1
PROPOSED SAMPLES FROM SOIL BORINGS BY DEPTH

**PRE-DESIGN INVESTIGATION WORK PLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

SAMPLE ID	DEPTH INCREMENT (FEET)				
	0-1	1-3	3-6	6-10	10-15
4A-SB-1	X	X	X	Y	Y
4A-SB-2	X	X	X	Y	Y
4A-SB-3	X	X	X	Y	Y
4A-SB-4	X	X	X	Y	Y
4A-SB-5	X	X	X	Y	Y
4A-SB-6	X	X	X	Y	Y
4A-SB-7	X	X	X	Y	Y
4A-SB-8	X	X	X	Y	Y
4A-SB-9	X	X	X	Y	Y
4A-SB-10	X	X	X	Y	Y
4A-SB-11	X	X	X	Y	Y
4A-SB-12	X	X	X	Y	Y
4A-SB-13	X	X	X	Y	Y
4A-SB-14	X	X	X	Y	Y
4A-SB-15	X	X	X	Y	Y
4A-SB-16	X	X	X	Y	Y
4A-SB-17	X	X	X	Y	Y
4A-SB-18	X	X	X	Y	Y
4A-SB-19	X	X	X	Y	Y
4A-SB-20	X	X	X	Y	Y
4A-SB-21	X	X	X	Y	Y
4A-SB-22	X	X	X	Y	Y
4A-SB-23	X	X	X	Y	Y

Notes:

1. X - indicates depth increment to be collected and analyzed for PCBs.
2. Y - indicates depth increment to be collected and held for analysis in the event that PCB results from the 3- to 6- foot or 6- to 10-foot depth increment, as appropriate, indicate that the vertical extent of PCBs requires further definition.

TABLE 2
GE PRIOR APPENDIX IX + 3 SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter	Sample ID: Sample Depth(Feet): Date Collected:	H2-RB022041-0-0010 1-1.5 10/22/98
Volatile Organics		
None Detected		--
Semivolatile Organics		
Benzo(a)anthracene		0.10 J
Benzo(a)pyrene		0.099 J
Benzo(b)fluoranthene		0.098 J
Benzo(g,h,i)perylene		0.060 J
Benzo(k)fluoranthene		0.054 J
Chrysene		0.10 J
Fluoranthene		0.15 J
Indeno(1,2,3-cd)pyrene		0.059 J
Phenanthrene		0.080 J
Pyrene		0.19 J
Furans		
2,3,7,8-TCDF		0.000012 Y
TCDFs (total)		0.000061
1,2,3,7,8-PeCDF		0.0000055 J
2,3,4,7,8-PeCDF		0.0000077
PeCDFs (total)		0.000064
1,2,3,4,7,8-HxCDF		0.000010
1,2,3,6,7,8-HxCDF		0.0000057 J
1,2,3,7,8,9-HxCDF		ND(0.00000022)
2,3,4,6,7,8-HxCDF		ND(0.00000023)
HxCDFs (total)		0.000041
1,2,3,4,6,7,8-HpCDF		0.000022
1,2,3,4,7,8,9-HpCDF		0.0000037 J
HpCDFs (total)		0.000048
OCDF		0.000034
Total Furans		0.00025
Dioxins		
2,3,7,8-TCDD		ND(0.00000052)
TCDDs (total)		0.00000062
1,2,3,7,8-PeCDD		ND(0.00000030)
PeCDDs (total)		ND(0.0000017)
1,2,3,4,7,8-HxCDD		ND(0.00000052)
1,2,3,6,7,8-HxCDD		ND(0.0000010)
1,2,3,7,8,9-HxCDD		ND(0.00000088)
HxCDDs (total)		0.0000040
1,2,3,4,6,7,8-HpCDD		0.000018
HpCDDs (total)		0.000035
OCDD		0.00017
Total Dioxins		0.00021
Total TEQs (MDEP TEFs)		0.000018
Total TEQs (WHO TEFs)		0.00000741
Total TEQs (EPA TEFs)		0.0000076
Inorganics		
Arsenic		5.30
Barium		30.6
Beryllium		0.350 B
Cadmium		0.420 B
Chromium		13.3
Cobalt		15.4
Copper		18.4
Lead		14.7
Mercury		0.0570 B
Nickel		22.2
Selenium		0.540 B
Thallium		1.90
Vanadium		16.8
Zinc		69.2

TABLE 2
GE PRIOR APPENDIX IX + 3 SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Notes:

1. Samples were submitted to Quanterra Environmental Services, Inc. for analysis of Appendix IX+3 constituents.
2. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
3. With the exception of dioxin/furans, only detected constituents are summarized.
4. Total 2,3,7,8-TCDD toxicity equivalents (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO) and published by Van den Berg et al. in Environmental Health Perspectives 106(2), December 1998.
5. -- Indicates that all constituents for the parameter group were not detected.

Data Qualifiers:

Organics (volatiles, semivolatiles, dioxin/furans)

J - Indicates that the associated numerical value is an estimated concentration.

Y - 2,3,7,8-TCDF results have been confirmed on a DB-225 column.

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and practical quantitation limit (PQL).

TABLE 3
EPA PRIOR APPENDIX IX SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID: Sample Depth(Feet): Parameter Date Collected:	H2-F0218802-0-0000 0-0.5 11/10/98	H2-F0219004-0-0000 0-0.5 11/11/98	H2-F0219006-0-0000 0-0.5 11/11/98
Semivolatile Organics			
1,2,4-Trichlorobenzene	0.10 J	0.032 J	0.031 J
1,4-Dichlorobenzene	0.12 J	ND(0.46)	0.027 J
2-Methylnaphthalene	0.18 J	ND(0.46)	0.23 J
2-Methylphenol	ND(0.91)	ND(0.93)	ND(0.93)
4-Methylphenol	0.043 J	0.031 J	0.042 J
Acenaphthene	0.19 J	0.058 J	0.073 J
Acenaphthylene	0.21 J	0.16 J	0.12 J
Anthracene	0.77 J	0.28 J	0.25 J
Benzo(a)anthracene	3.9	2.2	2.0
Benzo(a)pyrene	3.6 J	2.7 J	2.6 J
Benzo(b)fluoranthene	2.5 J	2.4 J	1.9 J
Benzo(g,h,i)perylene	2.5 J	3.2 J	2.6 J
Benzo(k)fluoranthene	3.2 J	2.4 J	2.3 J
Benzyl Alcohol	ND(0.91) J	ND(0.93)	ND(0.93)
Chrysene	3.7 J	2.7 J	2.5 J
Dibenzo(a,h)anthracene	0.65 J	0.88 J	0.76 J
Dibenzofuran	0.15 J	0.076 J	0.077 J
Fluoranthene	5.7 J	3.3 J	4.0 J
Fluorene	0.28 J	0.082 J	0.11 J
Indeno(1,2,3-cd)pyrene	2.4 J	3.1 J	2.5 J
Naphthalene	0.52 J	0.28 J	0.38 J
Phenanthrene	2.7 J	1.3 J	1.5 J
Phenol	ND(0.91)	ND(0.93)	ND(0.93)
Pyrene	6.8 J	3.8 J	5.9 J
Organochlorine Pesticides			
None Detected	--	--	--
Organophosphate Pesticides			
None Detected	NA	NA	NA
Herbicides			
None Detected	--	--	--
Furans			
2,3,7,8-TCDF	0.000066	0.000096	0.000032
TCDFs (total)	0.0064	0.00047 J	0.0017 J
1,2,3,7,8-PeCDF	0.000068	0.000011	0.000026
2,3,4,7,8-PeCDF	0.000086	0.000013	0.000038
PeCDFs (total)	0.014	0.00081 J	0.0022 J
1,2,3,4,7,8-HxCDF	0.00020	0.000018	0.000055
1,2,3,6,7,8-HxCDF	0.000065	0.0000069	0.000034
1,2,3,7,8,9-HxCDF	0.000031	0.0000037	0.000010
2,3,4,6,7,8-HxCDF	0.000095	0.0000076	0.000030
HxCDFs (total)	0.011	0.00087 J	0.0012 J
1,2,3,4,6,7,8-HpCDF	0.0012	0.00014 J	0.00032 J
1,2,3,4,7,8,9-HpCDF	0.000099	0.0000082	0.000023
HpCDFs (total)	0.0017	0.00023 J	0.00061 J
OCDF	0.00072	0.000062	0.00020
Dioxins			
2,3,7,8-TCDD	0.000023	0.0000074	0.0000014
TCDDs (total)	0.000088	0.0000074	0.000019
1,2,3,7,8-PeCDD	0.000021	0.0000018 J	0.0000042
PeCDDs (total)	0.00024	0.000019	0.000030
1,2,3,4,7,8-HxCDD	0.000026	0.0000023 J	0.0000065
1,2,3,6,7,8-HxCDD	0.000042	0.0000040	0.000011
1,2,3,7,8,9-HxCDD	0.000030	0.0000028	0.0000080
HxCDDs (total)	0.00057	0.000054	0.00014
1,2,3,4,6,7,8-HpCDD	0.00033	0.000038	0.00012
HpCDDs (total)	0.00065	0.000075	0.00024
OCDD	0.0020	0.00026	0.00082
Total TEQs (WHO TEFs)	0.00016	0.000017	0.000080

TABLE 3
EPA PRIOR APPENDIX IX SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID:	H2-F0218802-0-0000	H2-F0219004-0-0000	H2-F0219006-0-0000
Sample Depth(Feet):	0-0.5	0-0.5	0-0.5
Parameter	Date Collected:	11/10/98	11/11/98
Date Collected:	11/10/98	11/11/98	11/11/98
Inorganics			
Antimony	0.770 J	0.900 J	1.00 J
Arsenic	4.10	29.0	45.4
Barium	40.2	72.2	67.6
Beryllium	0.180 J	0.350 J	0.120 J
Cadmium	0.160 J	ND(0.0300)	ND(0.0300)
Chromium	17.6	15.5	22.9
Cobalt	7.60	10.6	13.7
Copper	42.3 J	53.4 J	60.4 J
Lead	81.9 J	163 J	231 J
Mercury	0.170	0.590	0.770
Nickel	37.2	19.7	25.0
Selenium	0.530 J	1.60	0.900
Silver	ND(0.130)	0.480 J	0.750 J
Thallium	ND(0.560)	ND(0.510)	0.950 J
Tin	7.60	7.00	8.50
Vanadium	12.1	21.9	22.8
Zinc	161 J	164 J	179 J

TABLE 3
EPA PRIOR APPENDIX IX SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID: Sample Depth(Feet): Parameter Date Collected:	H2-F0219203-0-0000 0-0.5 11/12/98	H2-F0219407-0-0010 1-1.5 11/12/98	H2-F0220201-0-0000 0-0.5 11/13/98
Semivolatile Organics			
1,2,4-Trichlorobenzene	ND(0.41)	0.028 J	ND(0.40)
1,4-Dichlorobenzene	ND(0.41)	0.046 J	ND(0.40)
2-Methylnaphthalene	0.022 J	0.066 J	ND(0.40) J
2-Methylphenol	R	R	ND(0.40)
4-Methylphenol	R	R	ND(0.40)
Acenaphthene	ND(0.41)	0.034 J	ND(0.40)
Acenaphthylene	0.056 J	0.088 J	ND(0.40)
Anthracene	0.071 J	0.11 J	ND(0.40)
Benzo(a)anthracene	1.4	0.67	0.039 J
Benzo(a)pyrene	1.5	0.82	0.051 J
Benzo(b)fluoranthene	1.2	0.52	0.050 J
Benzo(g,h,i)perylene	1.2 J	0.64 J	0.049 J
Benzo(k)fluoranthene	1.4	0.75	0.056 J
Benzyl Alcohol	0.082 J	R	ND(0.40) J
Chrysene	1.5	0.77	0.062 J
Dibenzo(a,h)anthracene	0.40 J	0.20 J	ND(0.40) J
Dibenzofuran	ND(0.41)	0.027 J	ND(0.40)
Fluoranthene	2.2	0.85	0.076 J
Fluorene	0.019 J	0.039 J	ND(0.40)
Indeno(1,2,3-cd)pyrene	1.2 J	0.56 J	0.046 J
Naphthalene	0.038 J	0.14 J	ND(0.40)
Phenanthrene	0.38 J	0.43	0.047 J
Phenol	R	R	ND(0.40)
Pyrene	3.1 J	0.95 J	0.084 J
Organochlorine Pesticides			
None Detected	--	--	--
Organophosphate Pesticides			
None Detected	NA	NA	--
Herbicides			
None Detected	--	--	--
Furans			
2,3,7,8-TCDF	0.0000045	0.000017	0.000021
TCDFs (total)	0.000054 J	0.00043 J	0.00017 J
1,2,3,7,8-PeCDF	0.0000025	0.0000082	0.0000049
2,3,4,7,8-PeCDF	0.0000034	0.000016	0.0000067
PeCDFs (total)	0.000082 J	0.0012 J	0.000084 J
1,2,3,4,7,8-HxCDF	0.0000048	0.000026	0.0000041
1,2,3,6,7,8-HxCDF	0.0000022 J	0.0000078	0.0000042
1,2,3,7,8,9-HxCDF	0.0000089 J	0.0000044	0.0000064 J
2,3,4,6,7,8-HxCDF	0.0000028	0.000012	0.0000027
HxCDFs (total)	0.00010 J	0.00065 J	0.000047 J
1,2,3,4,6,7,8-HpCDF	0.000032 J	0.00011 J	0.000018 J
1,2,3,4,7,8,9-HpCDF	0.0000020 J	0.000013	0.0000011 J
HpCDFs (total)	0.000058 J	0.00025 J	0.000034 J
OCDF	0.000019	0.000085	0.000020
Dioxins			
2,3,7,8-TCDD	0.00000036 J	0.0000065	ND(0.00000034)
TCDDs (total)	0.0000014	0.000014	0.0000037
1,2,3,7,8-PeCDD	0.00000041 J	0.0000024 J	0.00000041 J
PeCDDs (total)	0.0000023 J	0.000024	0.0000047
1,2,3,4,7,8-HxCDD	0.00000060 J	0.0000028	0.00000055 J
1,2,3,6,7,8-HxCDD	0.0000011 J	0.0000042	0.00000094 J
1,2,3,7,8,9-HxCDD	0.00000087 J	0.0000028	0.00000066 J
HxCDDs (total)	0.000011	0.000053	0.0000094
1,2,3,4,6,7,8-HpCDD	0.000015	0.000039	0.000012
HpCDDs (total)	0.000027	0.000076	0.000022
OCDD	0.000096	0.00025	0.000094
Total TEQs (WHO TEFs)	0.0000049	0.000027	0.0000080

TABLE 3
EPA PRIOR APPENDIX IX SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID:	H2-F0219203-0-0000	H2-F0219407-0-0010	H2-F0220201-0-0000
Sample Depth(Feet):	0-0.5	1-1.5	0-0.5
Parameter Date Collected:	11/12/98	11/12/98	11/13/98
Inorganics			
Antimony	ND(0.670)	ND(0.760)	ND(0.740)
Arsenic	35.6	2.60	8.40
Barium	26.2	36.9	47.2
Beryllium	ND(0.0700)	0.160 J	ND(0.0100)
Cadmium	1.00	0.650	0.810
Chromium	11.2	9.70	7.30
Cobalt	11.5	7.40	13.3
Copper	20.4	21.1	25.3
Lead	101	27.6	28.8
Mercury	0.100	0.0700	0.0700
Nickel	17.5	10.9	17.2
Selenium	0.860	0.480 J	0.960
Silver	0.150 J	ND(0.120)	ND(0.110)
Thallium	ND(0.450)	0.570 J	ND(0.490)
Tin	1.10 J	2.90	0.700 J
Vanadium	12.7	9.70	10.2
Zinc	79.4	65.6	54.3

TABLE 3
EPA PRIOR APPENDIX IX SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID: Sample Depth(Feet): Parameter Date Collected:	H2-F0220603-0-0000 0-0.5 11/13/98	H2-F0321001-0-0010 1-1.5 11/16/98	H2-RB022041-0-0010 1-1.5 10/22/98
Semivolatile Organics			
1,2,4-Trichlorobenzene	0.025 J	0.085 J	ND(0.38) J
1,4-Dichlorobenzene	0.020 J	0.087 J	ND(0.38)
2-Methylnaphthalene	0.038 J	0.40 J	ND(0.38)
2-Methylphenol	R	0.046 J	ND(0.38)
4-Methylphenol	R	0.12 J	R
Acenaphthene	0.018 J	0.15 J	ND(0.38)
Acenaphthylene	0.037 J	0.85 J	ND(0.38) J
Anthracene	0.064 J	0.58 J	ND(0.38) J
Benzo(a)anthracene	0.61	2.9	0.064 J
Benzo(a)pyrene	0.72	3.6 J	0.053 J
Benzo(b)fluoranthene	0.60	3.2	0.050 J
Benzo(g,h,i)perylene	0.52 J	3.0	0.045 J
Benzo(k)fluoranthene	0.62	3.3	0.064 J
Benzyl Alcohol	R	ND(0.81)	ND(0.38) J
Chrysene	0.68	3.5	0.068 J
Dibenzo(a,h)anthracene	0.15 J	0.71 J	0.023 J
Dibenzofuran	0.021 J	0.14 J	ND(0.38)
Fluoranthene	0.87	4.4	0.10 J
Fluorene	0.022 J	0.18 J	ND(0.38)
Indeno(1,2,3-cd)pyrene	0.50 J	2.1	0.041 J
Naphthalene	0.11 J	0.67 J	ND(0.38)
Phenanthrene	0.32 J	2.3	0.059 J
Phenol	R	0.28 J	ND(0.38)
Pyrene	0.95 J	5.0	0.12 J
Organochlorine Pesticides			
None Detected	--	--	--
Organophosphate Pesticides			
None Detected	NA	--	--
Herbicides			
None Detected	--	--	--
Furans			
2,3,7,8-TCDF	0.000014	0.00018	0.0000093
TCDFs (total)	0.00034 J	0.0039 J	0.000076 J
1,2,3,7,8-PeCDF	0.0000080	0.00021	0.0000055
2,3,4,7,8-PeCDF	0.000013	0.00029	0.0000093
PeCDFs (total)	0.00055 J	0.0074 J	0.00011 J
1,2,3,4,7,8-HxCDF	0.000026	0.00052	0.000011
1,2,3,6,7,8-HxCDF	0.00014	0.00027 J	0.0000045
1,2,3,7,8,9-HxCDF	0.0000047	0.00012	0.0000020
2,3,4,6,7,8-HxCDF	0.000011	0.00017 J	0.0000035 J
HxCDFs (total)	0.00055 J	0.0053 J	0.00010 J
1,2,3,4,6,7,8-HpCDF	0.00017 J	0.0025 J	0.000086 J
1,2,3,4,7,8,9-HpCDF	0.000012	0.00019	0.0000050
HpCDFs (total)	0.00040 J	0.0045 J	0.00016 J
OCDF	0.00023	0.0015	0.000066
Dioxins			
2,3,7,8-TCDD	0.000016	0.0000049	0.0000061
TCDDs (total)	0.000026	0.000083	0.0000021
1,2,3,7,8-PeCDD	0.0000024 J	0.000021 J	0.00000038 J
PeCDDs (total)	0.000022	0.00023 J	0.0000041 J
1,2,3,4,7,8-HxCDD	0.0000034	0.000024	0.00000055 J
1,2,3,6,7,8-HxCDD	0.0000074	0.000055	0.0000011
1,2,3,7,8,9-HxCDD	0.0000042	0.000027	0.00000054 J
HxCDDs (total)	0.000078	0.00060	0.000010
1,2,3,4,6,7,8-HpCDD	0.000096	0.00059	0.000020
HpCDDs (total)	0.00016	0.0011	0.000035
OCDD	0.00063	0.0046	0.00017
Total TEQs (WHO TEFs)	0.000049	0.00035	0.000010

TABLE 3
EPA PRIOR APPENDIX IX SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID: Sample Depth(Feet): Parameter Date Collected:	H2-F0220603-0-0000 0-0.5 11/13/98	H2-F0321001-0-0010 1-1.5 11/16/98	H2-RB022041-0-0010 1-1.5 10/22/98
Inorganics			
Antimony	ND(0.680)	2.10	ND(0.610)
Arsenic	6.20	7.90	6.10
Barium	30.5	76.5	26.7
Beryllium	ND(0.0500)	0.390	0.170
Cadmium	0.960	ND(1.20)	ND(0.0300)
Chromium	10.0	114	11.1
Cobalt	9.50	10.3	10.2
Copper	25.9	188	17.3
Lead	49.8	329	14.6
Mercury	0.120	0.890	0.0600
Nickel	16.6	21.4 J	15.3
Selenium	0.680	ND(0.590)	0.370 J
Silver	0.140 J	ND(0.680)	ND(0.120)
Thallium	ND(0.450)	ND(0.670)	ND(0.520)
Tin	2.20	27.2	ND(1.40)
Vanadium	12.4	15.3	13.1
Zinc	76.5	314	57.7

TABLE 3
EPA PRIOR APPENDIX IX SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID:	H2-RB032121-0-0000
Sample Depth(Feet):	0-0.5
Parameter	Date Collected:
	10/19/98
Semivolatile Organics	
1,2,4-Trichlorobenzene	0.056 J
1,4-Dichlorobenzene	0.097 J
2-Methylnaphthalene	0.16 J
2-Methylphenol	ND(0.80)
4-Methylphenol	ND(0.80)
Acenaphthene	0.24 J
Acenaphthylene	0.11 J
Anthracene	0.99
Benzo(a)anthracene	2.3
Benzo(a)pyrene	1.8
Benzo(b)fluoranthene	1.5
Benzo(g,h,i)perylene	0.83
Benzo(k)fluoranthene	1.7
Benzyl Alcohol	ND(0.80) J
Chrysene	2.0
Dibenzo(a,h)anthracene	0.32 J
Dibenzofuran	0.19 J
Fluoranthene	4.2 J
Fluorene	0.50 J
Indeno(1,2,3-cd)pyrene	0.90
Naphthalene	0.35 J
Phenanthrene	3.3
Phenol	ND(0.80)
Pyrene	4.0
Organochlorine Pesticides	
None Detected	--
Organophosphate Pesticides	
None Detected	NA
Herbicides	
None Detected	--
Furans	
2,3,7,8-TCDF	0.000016
TCDFs (total)	0.00019 J
1,2,3,7,8-PeCDF	0.0000084
2,3,4,7,8-PeCDF	0.000016
PeCDFs (total)	0.00029 J
1,2,3,4,7,8-HxCDF	0.000021
1,2,3,6,7,8-HxCDF	0.0000075
1,2,3,7,8,9-HxCDF	0.0000033
2,3,4,6,7,8-HxCDF	0.0000044
HxCDFs (total)	0.00023
1,2,3,4,6,7,8-HpCDF	0.00012
1,2,3,4,7,8,9-HpCDF	0.0000096
HpCDFs (total)	0.00023
OCDF	0.00012
Dioxins	
2,3,7,8-TCDD	0.00000047 J
TCDDs (total)	0.0000060
1,2,3,7,8-PeCDD	0.00000088 J
PeCDDs (total)	0.0000071 J
1,2,3,4,7,8-HxCDD	0.0000011 J
1,2,3,6,7,8-HxCDD	0.0000039
1,2,3,7,8,9-HxCDD	0.0000017
HxCDDs (total)	0.000031
1,2,3,4,6,7,8-HpCDD	0.0000077
HpCDDs (total)	0.00014
OCDD	0.00074
Total TEQs (WHO TEFs)	0.000018

TABLE 3
EPA PRIOR APPENDIX IX SOIL DATA - GROUP 4A

PRE-DESIGN INVESTIGATION WORKPLAN ADDENDUM FOR THE PHASE 4 -
GROUP 4A FLOODPLAIN PROPERTIES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID: H2-RB032121-0-0000	
Sample Depth(Feet): 0-0.5	
Parameter Date Collected: 10/19/98	
Inorganics	
Antimony	0.660
Arsenic	2.90
Barium	34.2
Beryllium	0.250
Cadmium	ND(0.170)
Chromium	13.6
Cobalt	6.30
Copper	22.2
Lead	31.7
Mercury	0.0800
Nickel	11.8
Selenium	ND(0.210)
Silver	ND(0.510)
Thallium	ND(0.740)
Tin	ND(1.50)
Vanadium	10.2
Zinc	72.3

Notes:

1. Sample collection and analysis performed by United States Environmental Protection Agency (EPA) Subcontractors. Results provided to GE under a Data Exchange Agreement between GE and EPA.
2. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
3. With the exception of dioxin/furans, only those constituents detected in at least one sample are summarized.
4. Total 2,3,7,8-TCDD toxicity equivalents (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO) and published by Van den Berg et al. in Environmental Health Perspectives 106(2), December 1998.

Data Qualifiers:

Organics (semivolatiles, pesticides, herbicides, dioxin/furans)

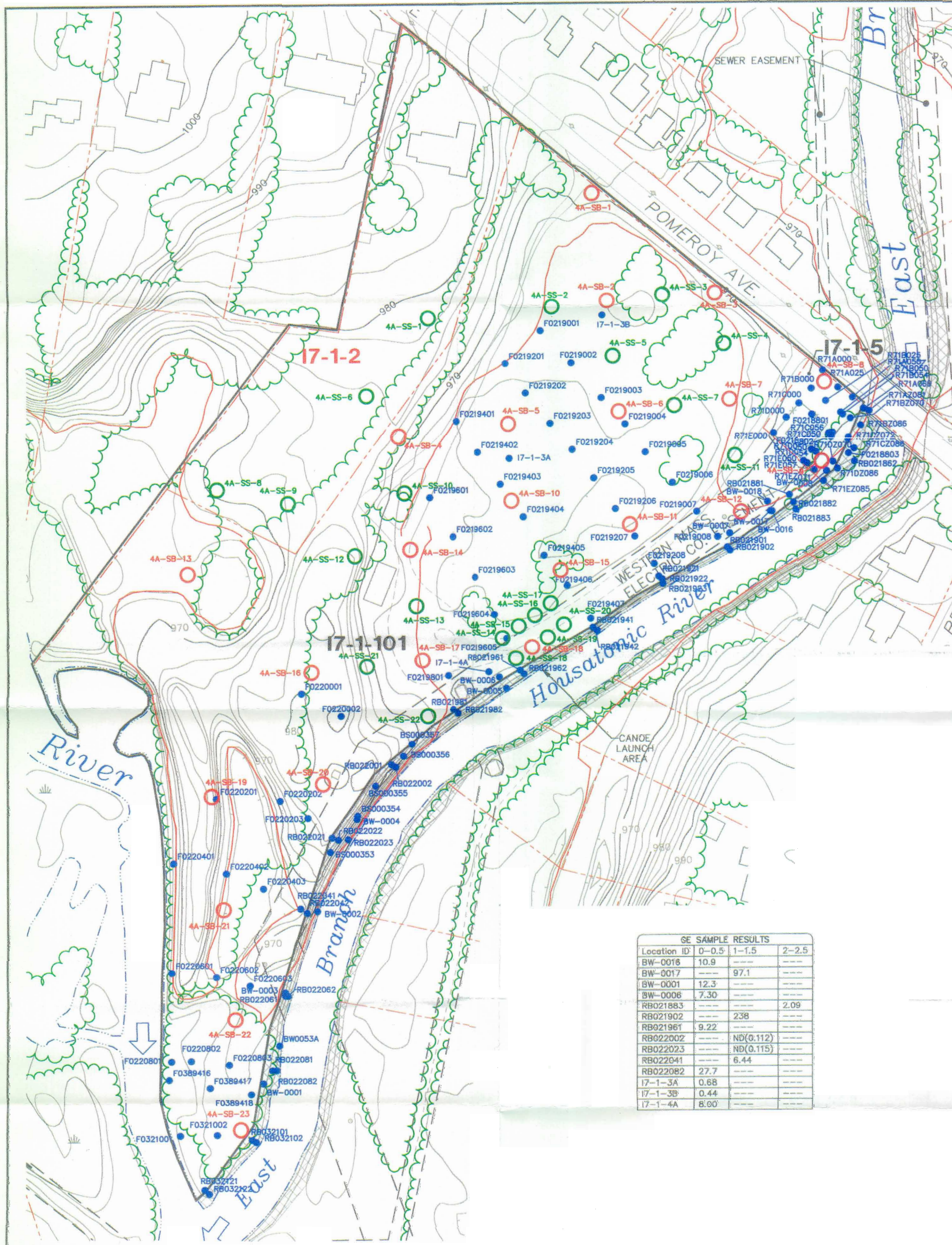
J - Estimated Value.

R - Rejected.

Inorganics

J - Estimated Value.

Figures

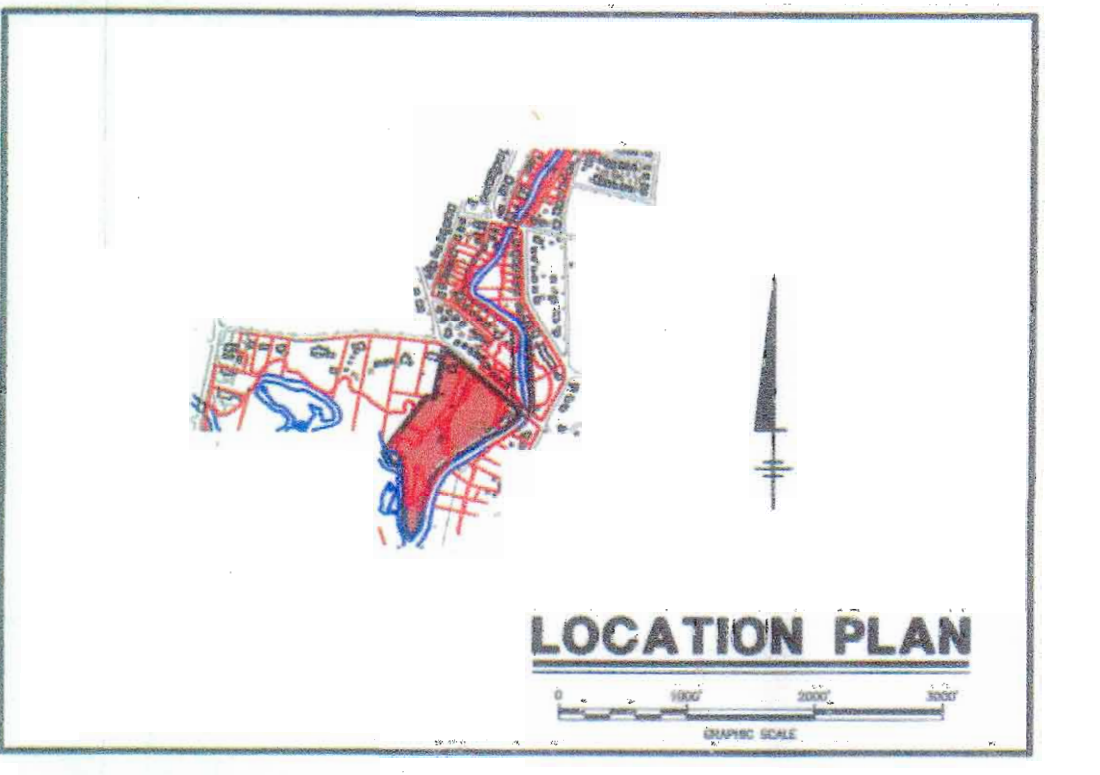


GE SAMPLE RESULTS

Location ID	0-0.5	0.5-1	1-1.5	1.5-2	2-2.5	2.5-3	3-3.5	3.5-4	4-4.5	4.5-5
BW-0016	10.9									
BW-0017		97.1								
BW-0001	12.3									
BW-0006	7.30									
RB021883			2.09							
RB021902		2.38								
RB021961	9.22									
RB022002			ND(0.112)							
RB022023			ND(0.115)							
RB022041			6.44							
RB022082	27.7									
17-1-3A	0.68									
17-1-3B	0.44									
17-1-4A	6.00									

SUMMARY OF EXISTING PCB SOIL SAMPLE RESULTS
(RESULTS ARE PRESENT AS DRY WEIGHT PARTS PER MILLION, PPM)
(SAMPLE INCREMENTS IN FEET BELOW GROUND SURFACE)

Location ID	0-0.5	0.5-1	1-1.5	1.5-2	2-2.5	2.5-3	3-3.5	3.5-4	4-4.5	4.5-5
RB000353										
RB000354										
RB000355										
RB000356										
RB000357										
BW-0001	4.13									
BW-0002	68									
BW-0003	21									
BW-0004	48									
BW-0005	8.18									
BW-0006	13									
BW-0007	9.08									
BW-0008	13									
BW-0016	10									
BW-0017	36									
BW-0018	47									
RB000358	12									
F0218801	1.8 (1.7)									
F0218802	45.4									
F0218803	30.8									
F0219001	ND(0.58)									
F0219002	0.543 J									
F0219003	1.889									
F0219004	4.7 J									
F0219005	2.41									
F0219006	4.21									
F0219007	5.83									
F0219008	23.1									
F0219009	ND(0.61)									
F0219010	ND(0.59)									
F0219011	0.58 J									
F0219012	0.489 J									
F0219013	2.17									
F0219014	4.91 J									
F0219015	6.79									
F0219016	74.8 (71.5)									
F0219017	ND(0.58)									
F0219018	ND(0.61)									
F0219019	1.11									
F0219020	0.929									
F0219021	7.7 J									
F0219022	8.37 J (3.7)									
F0219023	33.7 J									
F0219024	0.83 J									
F0219025	8.17									
F0219026	1.14 J									
F0219027	2.81									
F0219028	11.1									
F0219029	0.808									
F0219030	ND(0.63)									
F0219031	ND(0.61)									
F0219032	0.12 J									
F0219033	ND(0.60)									
F0219034	ND(0.56)									
F0219035	ND(0.55)									
F0219036	ND(0.56)									
F0219037	ND(0.56)									
F0219038	ND(0.56)									
F0219039	1.02									
F0219040	ND(0.61)									
F0219041	1.8									
F0219042	2.46									
F0219043	0.506 J									
F0219044	4.75									
F0219045	19.8 J									
F0219046	35.1									
F0219047	16.2 J									
F0219048	11.5									
F0219049	46									
F0219050	22.7 (22.6)									
F0219051	ND(0.50)									
F0219052	ND(0.50)									
F0219053	ND(0.50)									
F0219054	ND(0.50)									
F0219055	ND(0.50)									
F0219056	ND(0.50)									
F0219057	ND(0.50)									
F0219058	ND(0.50)									
F0219059	ND(0.50)									
F0219060	ND(0.50)									
F0219061	ND(0.50)									
F0219062	ND(0.50)									
F0219063	ND(0.50)									
F0219064	ND(0.50)									
F0219065	ND(0.50)									
F0219066	ND(0.50)									
F0219067	ND(0.50)									
F0219068	ND(0.50)									
F0219069	ND(0.50)									
F0219070	ND(0.50)									
F0219071	ND(0.50)									
F0219072	ND(0.50)									
F0219073	ND(0.50)									
F0219074	ND(0.50)									
F0219075	ND(0.50)									
F0219076	ND(0.50)									
F0219077	ND(0.50)									
F0219078	ND(0.50)									
F0219079	ND(0.50)									
F0219080	ND(0.50)									
F0219081	ND(0.50)									
F0219082	ND(0.50)									
F0219083	ND(0.50)									
F0219084	ND(0.50)									
F0219085	ND(0.50)									
F0219086	ND(0.50)									
F0219087	ND(0.50)									
F0219088	ND(0.50)									
F0219089	ND(0.50)									
F0219090	ND(0.50)									
F0219091	ND(0.50)									
F0219092	ND(0.50)									
F0219093	ND(0.50)									
F0219094	ND(0.50)									
F0219095	ND(0.50)									
F0219096	ND(0.50)									
F0219097	ND(0.50)									
F0219098	ND(0.50)									
F0219099	ND(0.50)									
F0219100	ND(0.50)									
F0219101	ND(0.50)									
F0219102	ND(0.50)									
F0219103	ND(0.50)									
F0219104	ND(0.50)									
F0219105	ND(0.50)									
F0219106	ND(0.50)									
F0219107	ND(0.50)									
F0219108	ND(0.50)									
F0219109	ND(0.50)									
F0219110	ND(0.50)									
F0219111	ND(0.50)									
F0219112	ND(0.50)									
F0219113	ND(0.50)									
F0219114	ND(0.50)									
F0219115	ND(0.50)									
F0219116	ND(0.50)									
F0219117	ND(0.50)									
F0219118	ND(0.50)									
F0219119	ND(0.50)									
F0219120	ND(0.50)									
F0219121	ND(0.50)									
F0219122	ND(0.50)									



LEGEND

- 970 TOPOGRAPHIC CONTOUR
- APPROXIMATE PARCEL BOUNDARY
- 10-YEAR FLOODPLAIN BOUNDARY
- 17-1-2 RESIDENTIAL PROPERTY PARCEL ID
- 17-1-5 NON-RESIDENTIAL PROPERTY PARCEL ID
- 1A-91 EXISTING SOIL BORING LOCATION
- 4A-SS-1 PROPOSED SURFACE SOIL SAMPLE LOCATION
- 4A-SB-4 PROPOSED SOIL BORING LOCATION
- AREA TO BE ADDRESSED BY EPA IN 1 1/2 MILE REACH REMOVAL AREA
- BOUNDARY OF FLOODPLAIN PROPERTIES DESIGNATED IN SOW (FOR GROUP 4A)

- FIGURE NOTES:**
- THE BASE MAP FEATURES PRESENTED ON THIS FIGURE WERE PHOTOGRAMMETRICALLY MAPPED FROM AERIAL PHOTOGRAPHS DATED APRIL 1990.
 - PARCEL IDENTIFICATION AND BOUNDARIES ARE BASED ON CITY OF PITTSFIELD TAX ASSESSORS' INFORMATION.
 - THE 10-YEAR FLOODPLAIN LINE IS APPROXIMATE AND WAS DERIVED USING HYDRAULIC MODELING PERFORMED BY BLASLAND, BOUCK & LEE, INC. (1994) AND AVAILABLE TOPOGRAPHIC MAPPING.
 - SAMPLE LOCATIONS ARE APPROXIMATE.

- TABLE NOTES**
- SAMPLE DATA OBTAINED FROM EPA DATABASE TITLED 050704_USEPA_HR_DBASE1.MDB (EPA) AND GE DATABASE TITLED HR052604.MDB.
 - J = INDICATES ESTIMATED VALUE.
 - = INDICATES SAMPLE INTERVAL WAS NOT SUBJECT TO PCB ANALYSIS.
 - DUPLICATE RESULTS PRESENTED IN BRACKETS.
 - PCB CONCENTRATIONS ARE REPORTED AS DRY WEIGHT PARTS PER MILLION, PPM.

GENERAL ELECTRIC COMPANY
PRE-DESIGN INVESTIGATION WORK PLAN
ADDENDUM FOR FLOODPLAIN PROPERTIES
ADJACENT TO THE 1-1/2 MILE REACH

SUMMARY OF SOIL SAMPLING LOCATIONS FOR GROUP 4A

BBL
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
2

X: 40122X02, X04, X05, X38.DWG
L: ON=*, OFF=REF*
P: PAGESET/SYR-DL
7/13/04 SYR-B5-NES DMW LAF
N/40122001/SUMMARY/40122B03.DWG